

## SECTION 08 1213

### HOLLOW METAL FRAMES

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#### LANL MASTER SPECIFICATION

When editing to suit project, author shall add job-specific requirements and delete only those portions that in no way apply to the activity (e.g., a component that does not apply). To seek a variance from applicable requirements, contact the ESM Architectural POC.

When assembling a specification package, include applicable specifications from all Divisions, especially Division 1, General Requirements.

Delete information within "stars" during editing.

Specification developed for ML-3 projects. For ML-1 / ML-2, additional requirements and QA reviews are required.

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Do not use this specification if 08 1100, Metal Doors and Frames is being used in specification package.

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#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Standard steel door frames for installation of wood doors.
- B. Borrowed-light steel frames.
- C. Fixed glazing steel frames.

##### 1.2 SUBMITTALS

- A. Submit the following in accordance with the requirements of Section 01 3300, Submittal Procedures:
  - 1. Catalog data substantiating that products comply with specified requirements.
  - 2. Certifications for door assemblies required to be fire-rated that exceed sizes of tested assemblies, and for each frame assembly that has been constructed to conform to design, materials, and construction equivalent to the requirements for labeled construction.
  - 3. Shop Drawings, including details of each frame type, conditions at openings, details of construction, location and installation requirements of finish hardware and reinforcements, and detail of joints and connections. Show anchorage and accessory items.

- a. Provide schedule of frames using same reference numbers for details and openings as those on Drawings.
- b. Indicate coordination of glazing frames and stops with glass and glazing requirements.

### 1.3 QUALITY ASSURANCE

- A. Provide frames complying with Steel Door Institute "Recommended Specifications: Standard Steel Doors and Frames" (SDI-100) and as herein specified.
- B. Fire-Rated Door Assemblies: Where fire-rated door assemblies are indicated or required, provide fire-rated frame assemblies that comply with NFPA 80 "Standard for Fire Doors and Windows", and that have been tested, listed, and labeled in accordance with ANSI/NFPA 252 -Fire Tests of Door Assemblies" by a nationally recognized independent testing and inspection agency acceptable to LANL.

### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver frames cartoned or crated to provide protection from damage during transit and job storage.
- B. Inspect frames upon delivery for damage. Minor damages may be repaired provided finish items are equal in all respects to new work and acceptable to the LANL Contract Administrator; otherwise, remove and replace.
- C. Store frames at building site under cover. Place units on minimum 4" high wood blocking. Do not use non-vented plastic or canvas shelters which could create a humidity chamber.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Amweld Building Products
- B. Ceco Door Products
- C. CurriesCompany
- D. Fenestra Corp.
- E. Steelcraft
- F. Trussbilt, Inc.

### 2.2 MATERIALS

- A. Hot-Rolled Steel Sheets and Strip: Commercial quality carbon steel, pickled and oiled, complying with ASTM A 1011, Type B.

- B. Cold-Rolled Steel Sheets: Commercial quality carbon steel, complying with ASTM A 1008, Type B, suitable for exposed locations.
- C. Supports and Anchors: Fabricate of not less than 18 gauge galvanized sheet steel.
- D. Inserts, Bolts and Fasteners: Use manufacturer's standard units, except hot-dip galvanize items that are to be built into exterior walls, complying with ASTM A 153, Class C or D as applicable.
- E. Shop-Applied Paint:
  - 1. Primer: Rust-inhibitive enamel or paint, either air-drying or baked, suitable as a base for specified finish paints.

## 2.3 FABRICATION, GENERAL

- A. Fabricate frame units to be rigid, neat in appearance and free from defects, warp or buckle. Wherever practicable, fit and assemble units in manufacturer's plant. Clearly identify work that cannot be permanently factory-assembled before shipment, to assure proper assembly at project site.
- B. Provide frames of types and styles as shown on drawings and schedules. Conceal fastenings, unless otherwise indicated. Fabricate frames of minimum 16-gauge cold-rolled furniture steel with mitered and welded corners.
- C. Unless otherwise indicated, provide countersunk flat Phillips heads for exposed screws and bolts.
- D. Prepare frames to receive finish hardware in accordance with the approved Finish Hardware Schedule and templates provided by hardware supplier. Comply with applicable requirements of ANSI A115 series specifications for door and frame preparation for hardware.
- E. Reinforce frames to receive surface-applied hardware. Drilling and tapping for surface-applied finish hardware may be done at project site.
- F. Locate finish hardware as shown on final shop drawings or, if not indicated, in accordance with "Recommended Locations for Builder's Hardware", published by Door and Hardware Institute.
- G. Door Silencers: Except on weatherstripped frames, drill stops are to receive 3 silencers on strike jambs of single door frames and 2 silencers on heads of frames for pairs of doors.
- H. Shop Painting:
  - 1. Clean, treat and paint exposed surfaces of frame units, including galvanized surfaces.
  - 2. Clean steel surfaces of mill scale, rust, oil, grease, dirt and other foreign materials before application of paint.

3. Apply shop coat of primer paint of even consistency to provide a uniformly finished surface ready to receive finish paint.

## PART 3 EXECUTION

### 3.1 INSTALLATION

- A. General: Install frames and accessories in accordance with final shop drawings and manufacturer's data, and as herein specified.
- B. Placing Frames: Comply with provisions of ANSI/SDI A250.11 – “Recommended Erection Instructions for Steel Frames”, unless otherwise indicated.
  1. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set. After wall construction is completed, remove temporary braces and spreaders leaving surfaces smooth and undamaged.
  2. Install fire-rated frames in accordance with NFPA Std. No. 80.
  3. In steel stud partitions, install at least three wall anchors per jamb at hinge and strike levels. In open steel stud partitions, place studs in wall anchor notches and tie with wire. In closed steel stud partitions, attach wall anchors to studs with tapping screws.
- C. Prime Coat Touch-up: Immediately after erection, sand smooth any rusted or damaged areas of prime coat and apply touch-up of compatible air-drying primer.

## END OF SECTION

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Do not delete the following reference information:

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## FOR LANL USE ONLY

This project specification is based on LANL Master Specification 08 1213 Rev. 1, dated August 7, 2006.